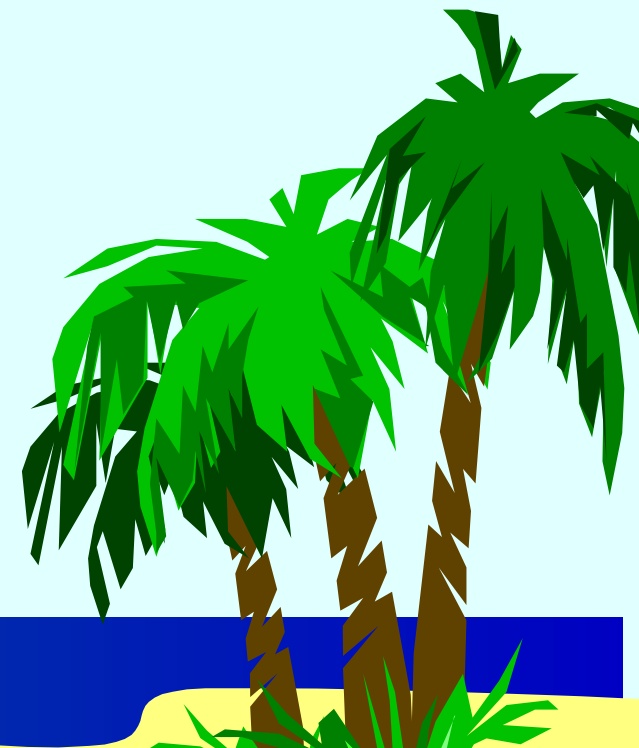


HURRICANE AWARENESS



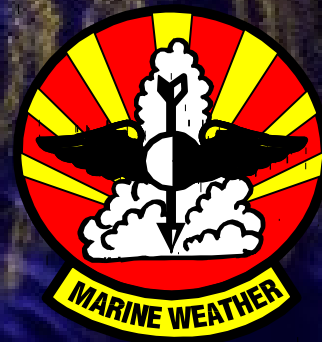
**2002
MCAS CHERRY POINT
WEATHER
466-2523**



A satellite image of Hurricane Floyd, showing a well-defined eye and spiral cloud bands. The image is a false-color representation, with the clouds appearing in shades of blue, white, and yellow. A red star marker is positioned on the hurricane's outer edge, pointing to a specific location.

MCAS Cherry Point

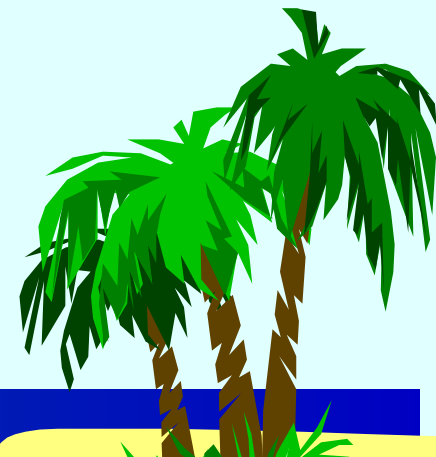
Hurricane Floyd
NOAA-14 AVHRR HRPT
Multi-spectral False Color Image
September 15, 1999 @ 2018 UTC



HURRICANE SEASON



- ATLANTIC
- 01 JUNE - 30 NOVEMBER
- PEAK MONTHS ARE AUGUST AND SEPTEMBER
- CAN OCCUR ANY MONTH



TROPICAL CYCLONE CLASSIFICATIONS



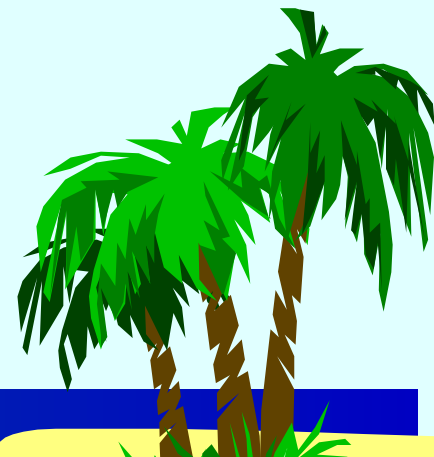
- **TROPICAL DISTURBANCE**
- **TROPICAL DEPRESSION**
- **TROPICAL STORM**
- **HURRICANE / TYPHOON**
- **SUPER HURRICANE**





TROPICAL DISTURBANCE

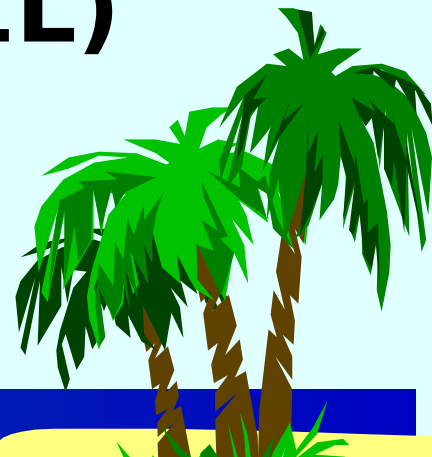
- **AREA OF CIRCULATION IN THE TROPICS THAT MAINTAINS ITS IDENTITY FOR 24 HOURS OR MORE**
- **ORGANIZED CONVECTION**

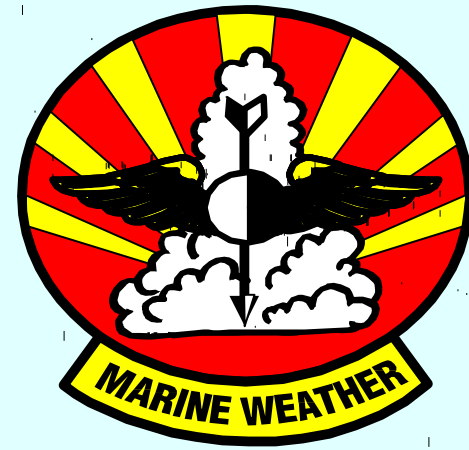




TROPICAL DEPRESSION

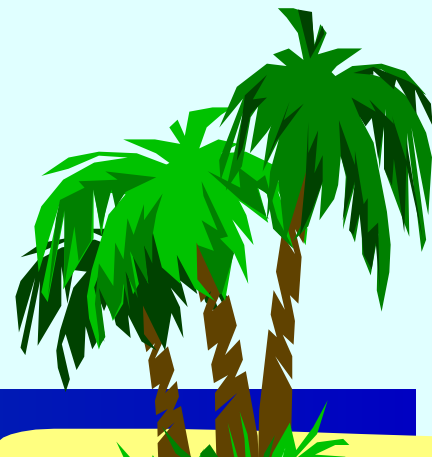
- **ORGANIZED TROPICAL SYSTEM
WITH SUSTAINED WINDS 33 KNOTS
OR LESS
(38 MPH)**
- **CLOSED CIRCULATION**
- **ASSIGNED A NUMBER (I.E., 01L)**

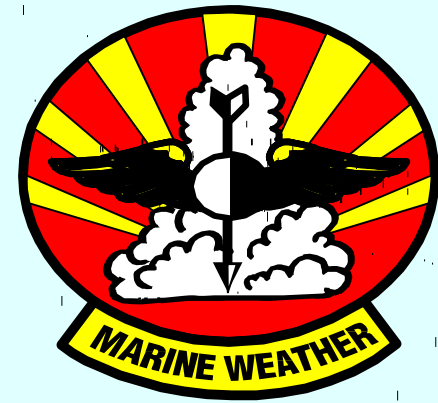




TROPICAL STORM

- **SUSTAINED WINDS OF 34 TO 63 KTS
(39 - 73 MPH)**
- **CIRCULATION BECOMES MORE
APPARENT**
- **ASSIGNED A NAME (I.E., FLOYD)**





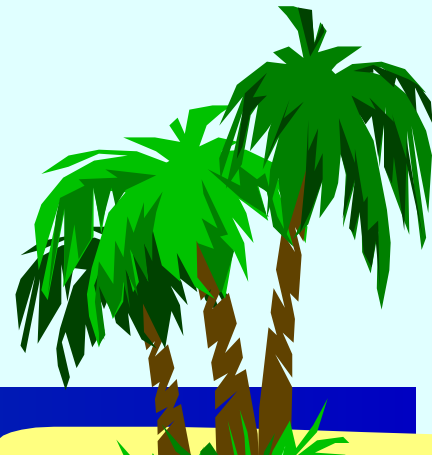
HURRICANE

- **SUSTAINED WINDS OF 64 KTS OR GREATER (74 MPH)**
- **WELL-DEFINED**
- **EYE MAY FORM**
- **SUPER HURRICANE - SUSTAINED WINDS OF 130 KNOTS OR GREATER (150 MPH)**

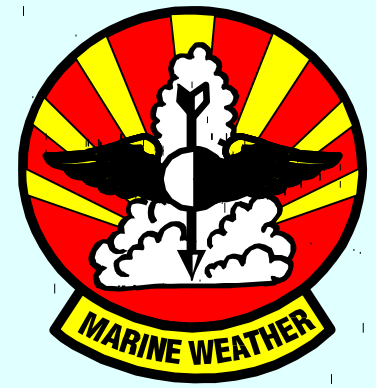




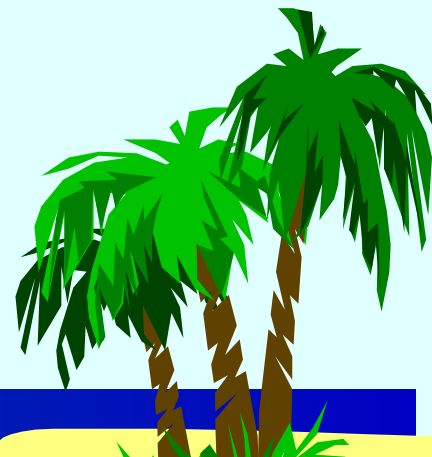
The Five Categories of a Hurricane



Category One



- Sustained Winds **64 - 82 kts (74-95mph)**
- Storm Surge of **4 - 5 ft** above normal
- Coastal flooding and minor pier damage
- Minor damage to shrubs and trees
- Minor damage contained to poorly constructed structures (to include mobile homes)



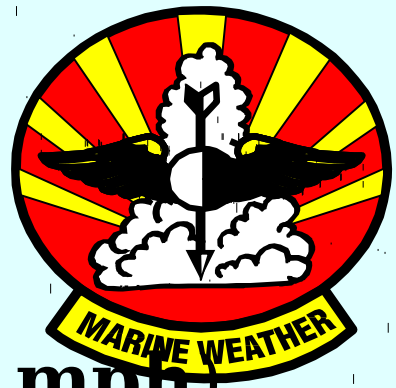
Category Two



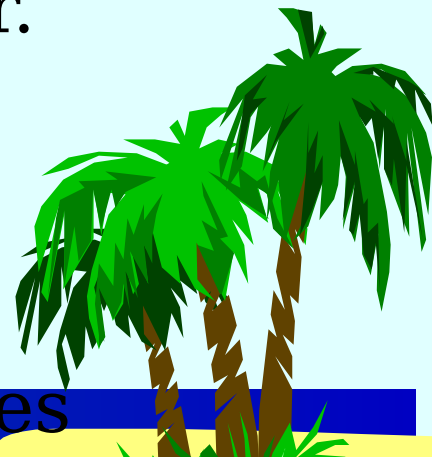
- Sustained Winds **83 - 95 kts (96 - 110 mph)**
- Storm Surge of **6 - 8 ft** above normal
- Coastal and low-lying escape cut by rising water
- **2 - 4 hours** before arrival of Hurricane center
- **Considerable** damage to poorly constructed buildings and signs (to include mobile homes and piers)
- **Considerable** damage to shrubs and trees -



Category Three



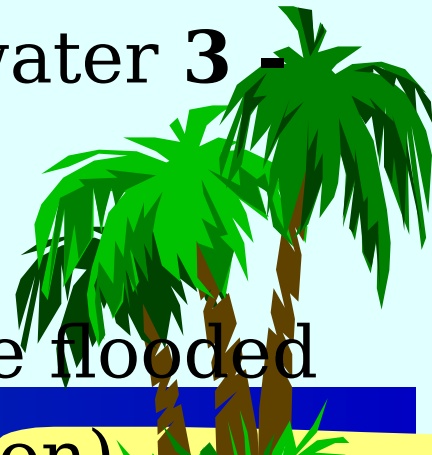
- **Major Hurricane** status
- Sustained Winds **96 - 113 kts (111 - 130 mph)**
- Storm Surge of **9 - 12 ft** above normal
- Minor damage to small residences and utility buildings
- Coastal flooding destroys small structures
- Floating debris damages larger coastal structures
- Low lying escape routes cut by rising water 3 -5 hours before arrival of the Hurricane center.
- Poorly constructed buildings and signs **destroyed**
(to include mobile homes)
- Damage to shrubbery and trees - large trees



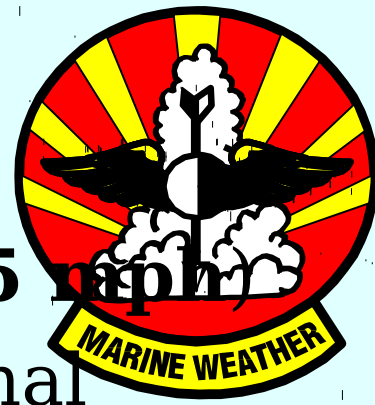
Category Four



- Sustained Winds **114 - 135 kts (131 - 155 mph)**
- Storm Surge of **13 - 18 ft** above normal
- Some complete roof failures on small residences
- Shrubs, trees, and all signs are blown down
- Poorly constructed buildings are **destroyed** (to include mobile homes)
- **Extensive** damage to doors and windows
- **Major** damage to lower floors of coastal structures
- Low lying escape routes **cut off** by rising water **3 - 5 hours** before arrival of the center of the Hurricane.
- Terrain lower than **10 ft** above MSL may be flooded inland **6 miles** (requiring massive evacuation)



Category Five



- Sustained Winds **greater than 135 kts (155 mph)**
- Storm Surge **greater than 18 ft** above normal
- **Complete** roof failure on many residences and industrial buildings
- Some complete building failures with small utility buildings blown over or away
- **All** shrubs, trees, and signs blown down
- Poorly constructed buildings completely **destroyed** (to include mobile homes)
- Low lying escape routes **cut off** by rising water **3-5 hours** before arrival of center of the Hurricane
- **Major** damage to lower floors of all structures **less than**

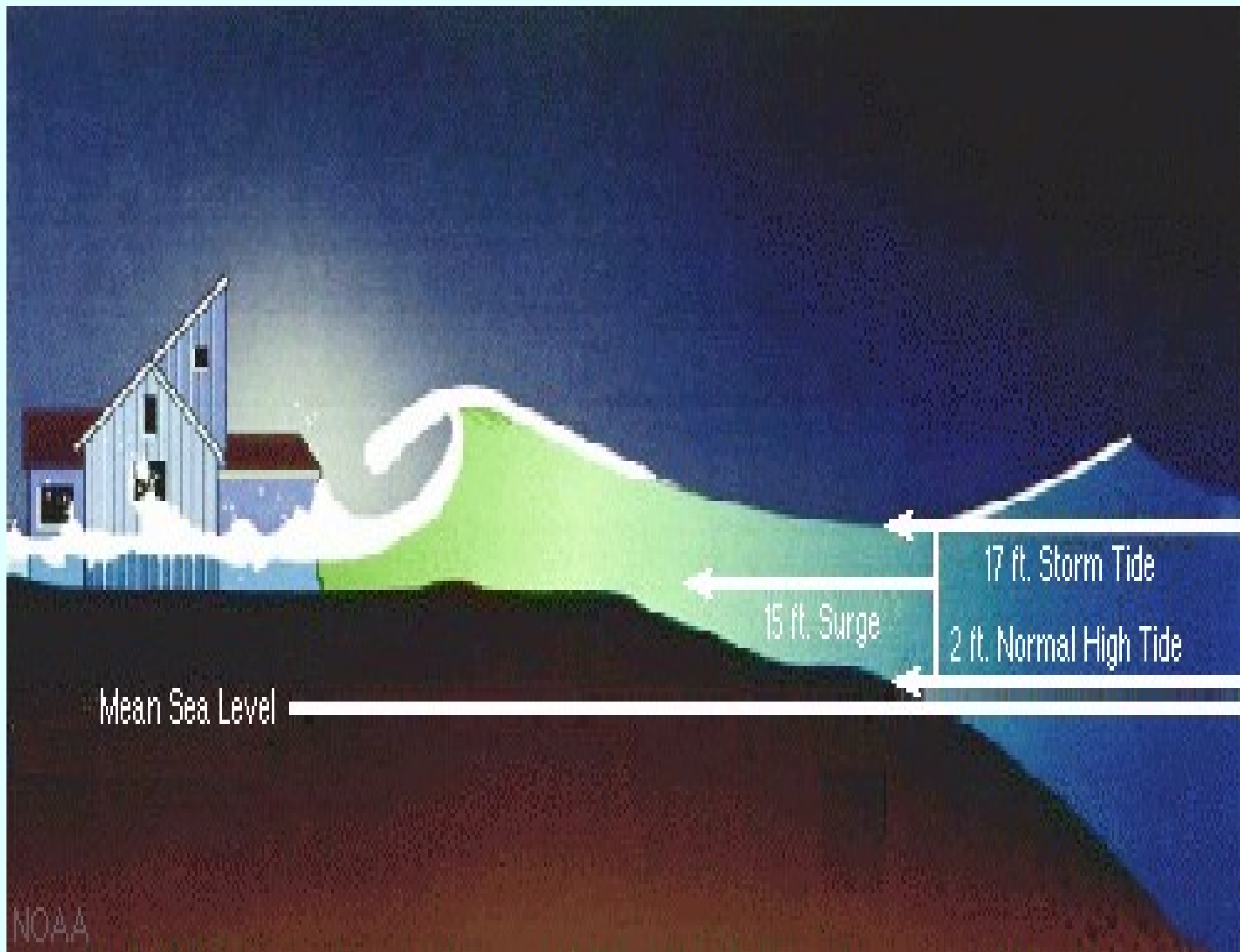




HURRICANE HAZARDS

- **STORM SURGE**
- **HIGH WINDS**
- **DAMAGING SURF**
- **FLOODING**
- **LAND AND MUD SLIDES**
- **TORNADOES**





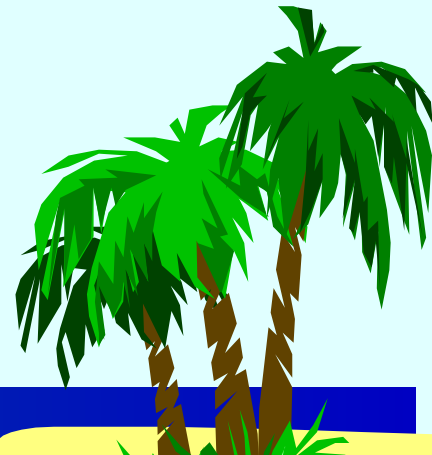




CONDITIONS OF READINES (COR)



- COR V - **ONSET** of Hurricane Season
- COR IV - **POSSIBLE** Destructive Winds
W/I 72 Hrs
- COR III - **POSSIBLE** Destructive Winds
W/I 48 Hrs
- COR II - Destructive Winds
ANTICIPATED W/I 24 Hrs
- COR I - Destructive Winds
ANTICIPATED W/I 12 Hrs



CONDITIONS OF READINES (COR) Cont.



- COR I (Caution) - Destructive Winds **ARE FORECAST** to affect the Cherry Point Area W/I 6 Hrs
- COR I (Emergency) - Destructive Winds **ARE OCCURRING** in the Cherry Point Area
- COR I (Recovery) - Destructive Weather System **HAS PASSED**, Safety and Storm Hazards Remain



NWS WARNINGS



- **HURRICANE WATCH** - POSSIBLE THREAT TO SPECIFIED COASTAL AREA W/I 36 HOURS
- **HURRICANE WARNING** - HURRICANE FORCE WINDS EXPECTED IN A SPECIFIED AREA W/I 24 HOURS OR LESS
- **FLASH FLOOD WATCH** - FLASH FLOOD IS POSSIBLE
- **FLASH FLOOD WARNING** - FLASH FLOOD IS IMMINENT OR OCCURRING





REFERENCES

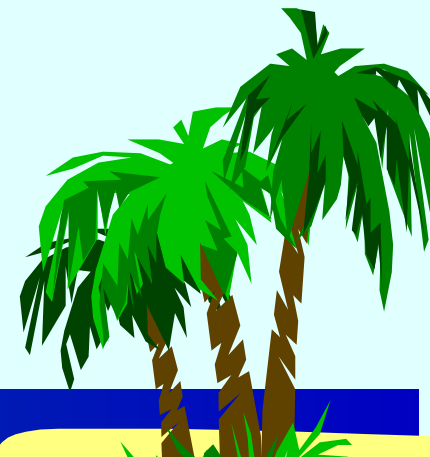
- **OPNAVINST 3140.24E (Warnings and COR Concerning Hazardous or Destructive Weather Phenomena)**
 - **ESTABLISHES COR FOR NAVY AND USMC**
 - **PROVIDES INFORMATION CONCERNING DESTRUCTIVE WEATHER**
- **AirStaO 3140.2L (Destructive Weather Manual)**
- **WgO 3140.1 (2nd MAW Aircraft Evac)**





RESPONSIBILITIES

- **NATIONAL HURRICANE CENTER (NHC) / TROPICAL PREDICTION CENTER (PDC)**
 - **Issues Tropical Cyclone Forecasts/Advisories every 6 Hours (0300, 0900, 1500, 2100 Zulu)**
 - **Issues Tropical Cyclone Discussions**
 - **Issues Tropical Cyclone Public Advisories**



RESPONSIBILITIES CONT.



■ **LOCAL NWS OFFICE**

- **Issues Hurricane Local Statements (HLS)**
 - **Identifies areas, storm info, impacts and precautionary/preparedness actions**
- **Issues Special Weather Statements (SPS)**
- **Issues Tornado, Severe Thunderstorm and Flash Flood Warnings**

■ **NAVAL ATLANTIC METOC CENTER (NAVLANTMETOCCEN) NORFOLK,**



RESPONSIBILITIES CONT.



■ CG, MCAS CHERRY POINT

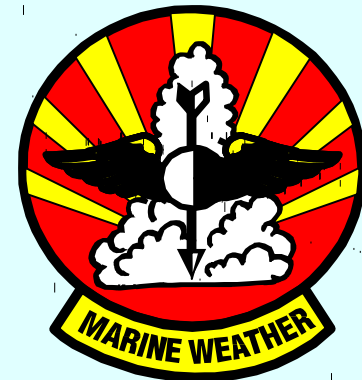
- Evaluates, sets and coordinates conditions of readiness (COR) for MCAS Cherry Point Area
- Authority exercised through the EOC

■ MCAS WXO

- Advises CG, MCAS, DIROPS and MCAS Destructive Weather Officer
- Recommends Storm COR to CG



RESPONSIBILITIES CONT.



■ JOINT DESTRUCTIVE WEATHER COORDINATION STAFF

- Dir Ops is OIC
- Assembles upon setting COR IV

■ EMERGENCY OPERATIONS CENTER (EOC)

- Activated by CG, MCAS upon setting COR III
- Dir Ops is OIC
- EOC staff comprised of MCAS and 2d MAW reps
- Located in Bldg. #299 (adjacent to CG Bldg 198)
- Coordinates all requests for support

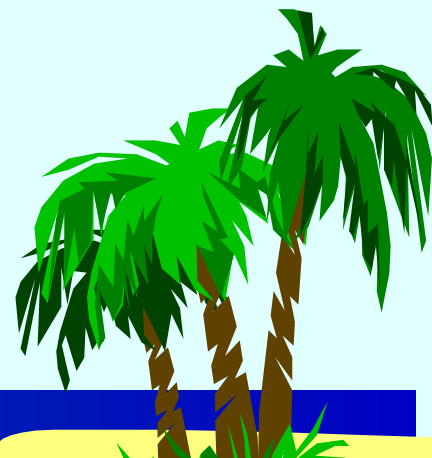




CONTINGENCY PLANS

■ COR IV (72 HOURS)

- Review destructive weather plans
- Inspect area and buildings
- Prepare to issue foul weather gear, generators, potable water
- Submit list of Aircraft Bureau numbers to
2D MAW and Facilities





CONTINGENCY PLANS

■ COR III (48 HOURS)

- EOC activated
- Prepare to set-up emergency shelters
- Complete emergency repair to buildings
- Report MRE requirements to supply
- Coordinate Set-up and Op Check of Comm Equipment
- Issue Foul Weather Gear
- Review Plans
- Personnel and equipment on stand-by
- Report attainment of COR III to EOC





CONTINGENCY PLANS

■ COR II (24 HOURS)

- Remove signs, debris and portable equipment
- Establish Damage Control Party at Cherry Tree House
- Detailed Inspection of all areas
- Tie down and cover remaining equipment
- Position and check emergency generators
- Prepare hangars for maximum hangering of aircraft and equipment
- Secure all field training



CONTINGENCY PLANS



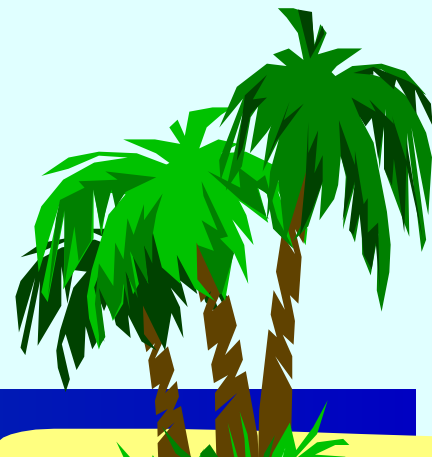
- **COR I (12 HOURS)**
 - **Secure non-essential personnel to quarters**
 - **Continue to provide meals at chow hall**
 - **Complete general security measures**
 - **Closure of activities, facilities and services**
 - **Gate traffic may be limited (Slocum)**
 - **Report attainment of COR I to EOC**



CONTINGENCY PLANS



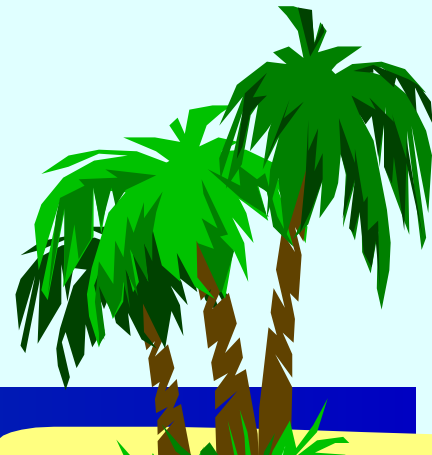
- **COR I CAUTION (6 HOURS)**
 - **Close Air Station to all incoming traffic except essential personnel**
 - **Secure liberty**
 - **Restrict non-essential personnel to barracks, quarters and shelters**
 - **Maintain essential communications**



CONTINGENCY PLANS



- **COR I EMERGENCY (OCCURRING)**
 - **Secure all but essential operations**
 - **Cease vehicular traffic**
 - **Emergency and tactical vehicle ops coordinated by EOC**



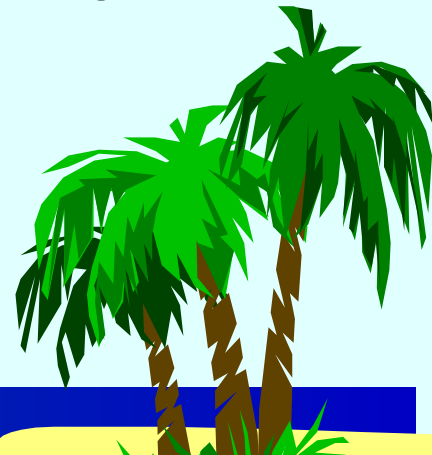
CONTINGENCY PLANS



■ COR I RECOVERY

(System has passed, HAZARDS
REMAIN)

- Support EOC in recovery efforts
- Conduct casualty and damage assessments
- Provide reports as required
- Continue to restrict non-essential personnel



EMERGENCY SHELTERS



■ MCAS CHERRY POINT

- **CHERRY TREE HOUSE** (Hancock Housing, Fort Macon, Staff Capehart, Officer Housing, Trailer Park)
- **MARINE DOME** (Over Flow for Cherry Tree House)

■ HAVELOCK

- **HAVELOCK SENIOR HIGH SCHOOL**
(Civilian community emergency shelter)
- **AUTHUR EDWARDS ELEM SCHOOL**
(Slocum Village, civilians)
- **HAVELOCK MIDDLE SCHOOL** (Civilian)





PREPARATION CHECKLIST

- **NOTIFY AND ASSIST FAMILY, FRIENDS AND NEIGHBORS**
- **ARRANGE FOR TRANSPORTATION**
 - Car (fill with gas)
 - Ride with neighbors
- **BRIEF FAMILY ON EMERGENCY PLAN**
 - Destination
 - EVAC Routes
 - Rendezvous Point, If Separated





PREPARATION CHECKLIST

■ **ASSEMBLE VALUABLES**

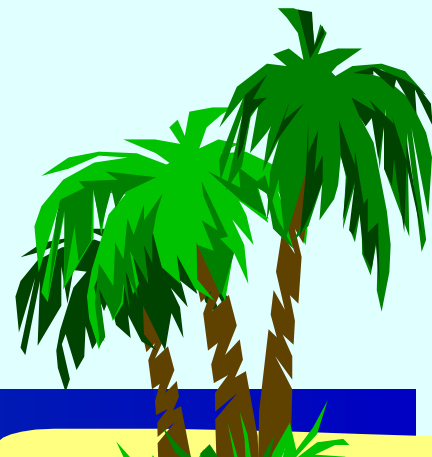
- Important papers, jewelry, etc.
- Store on secure shelves or upper floors
- Determine care of pets (Not allowed in shelters)

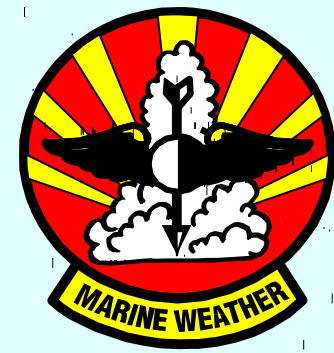
■ **SECURE AND STORE LOOSE ITEMS**

- Outside and inside

■ **LOCATE UTILITY SHUT-OFFS**

- Electric/gas





PREPARATION CHECKLIST

- **STORE DRINKING WATER**
 - Containers, Bathtub, Washing Machine
- **BOARD UP OR TAPE WINDOWS**
- **MOOR SMALL BOATS OR MOVE TO SAFE AREA**
- **USE TELEPHONE ONLY FOR EMERGENCIES**
- **MONITOR RADIO AND TV FOR INSTRUCTIONS**





SURVIVAL KIT

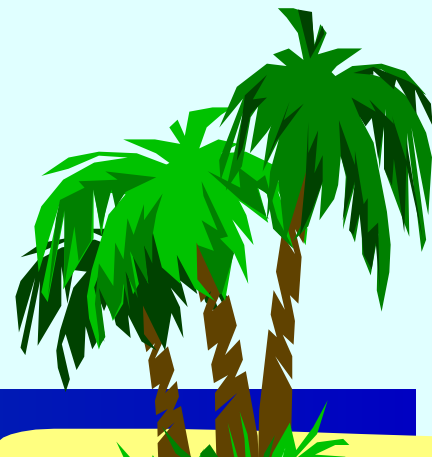
- **PORTABLE RADIO**
- **FLASHLIGHTS**
- **EXTRA BATTERIES**
- **FIRST AID KIT**
- **NON-PERISHABLE FOOD (5 DAYS)**
- **NON-ELECTRIC CAN OPENER**
- **CONTAINERS OF WATER**
- **SLEEPING BAGS / BLANKETS /
AIR MATTRESSES**





SURVIVAL KIT

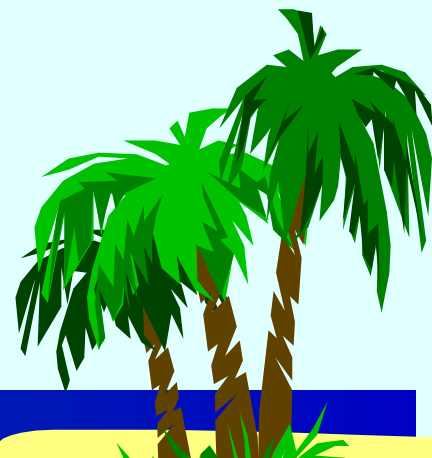
- **SPECIAL MEDICATIONS / DIETS**
- **CHANGE OF CLOTHES**
- **PERSONAL HYGIENE / SANITARY SUPPLIES**
- **TOILET ARTICLES / DIAPERS**



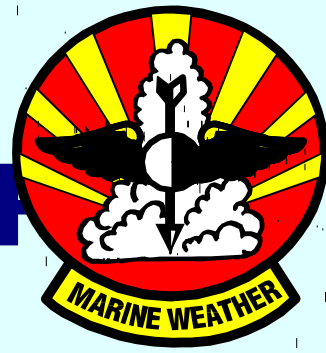


PRIORITIES OF DISASTER PREPAREDNESS

- **PRIORITY I - PROTECT AND SAVE LIVES**
- **PRIORITY II - PROTECT AND SAVE PROPERTY**
- **PRIORITY III - RESTORE PROPERTY**



IMPORTANT PHONE NUMBERS

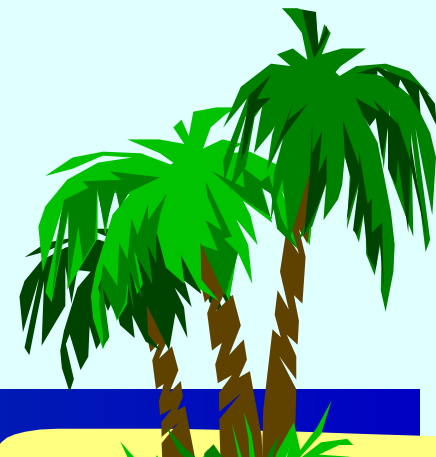


- **MCAS MPs: 466-3615/3616**
- **MCAS FIRE DEPT: 466-3337**
- **EMERGENCY POLICE, FIRE, AMBULANCE: 911**
- **MCAS CDO: 466-5236**
- **MCAS WEATHER: 466-2523**
- **NAVAL HOSPITAL: 466-0266**
- **HAVELOCK PUBLIC SAFETY: 447-1111**
- **MCAS CHANNEL 6**
- **CRAVEN DISASTER PREPAREDNESS: 636-4271**





SUPPORTING DOCUMENTS

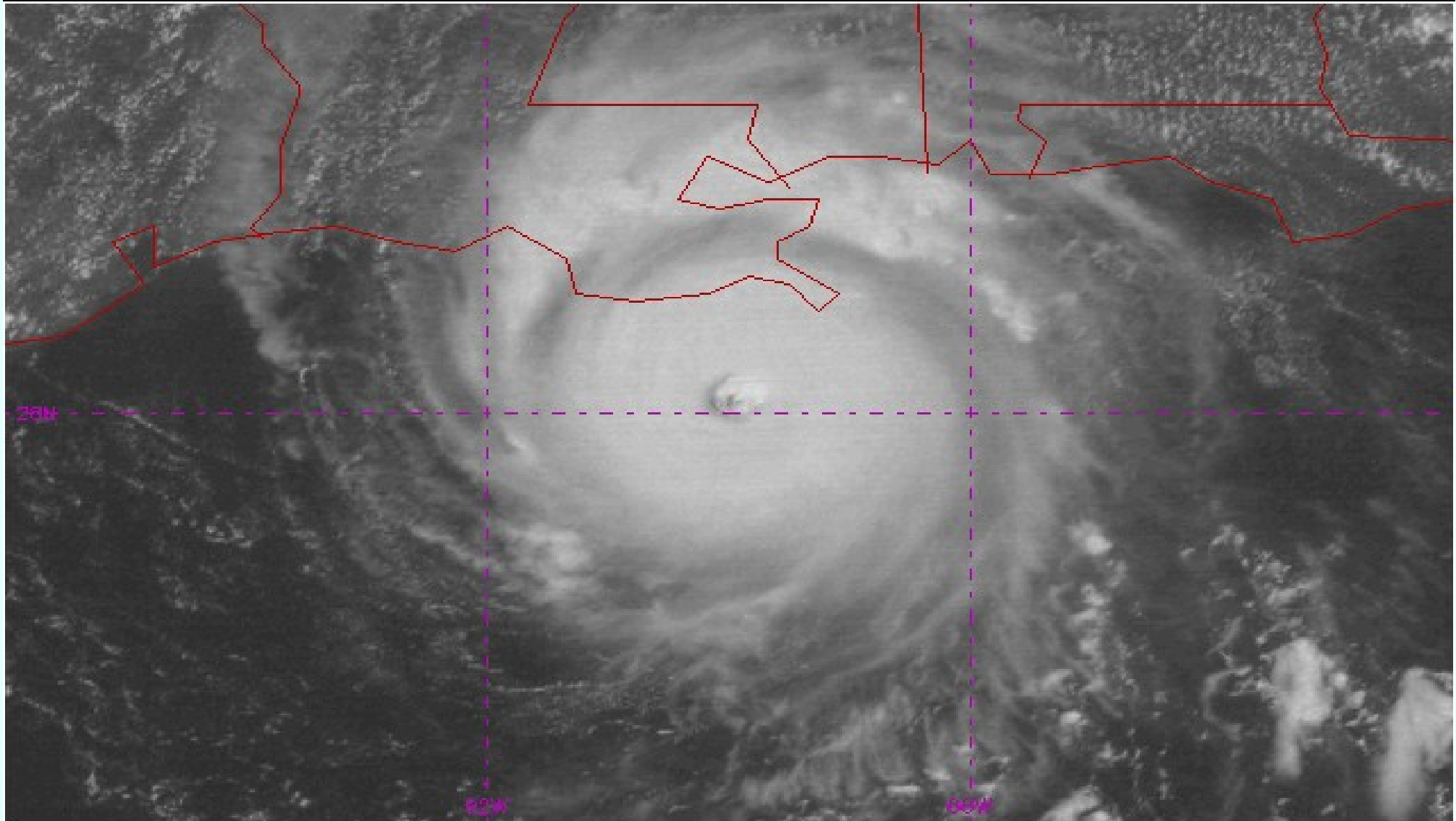


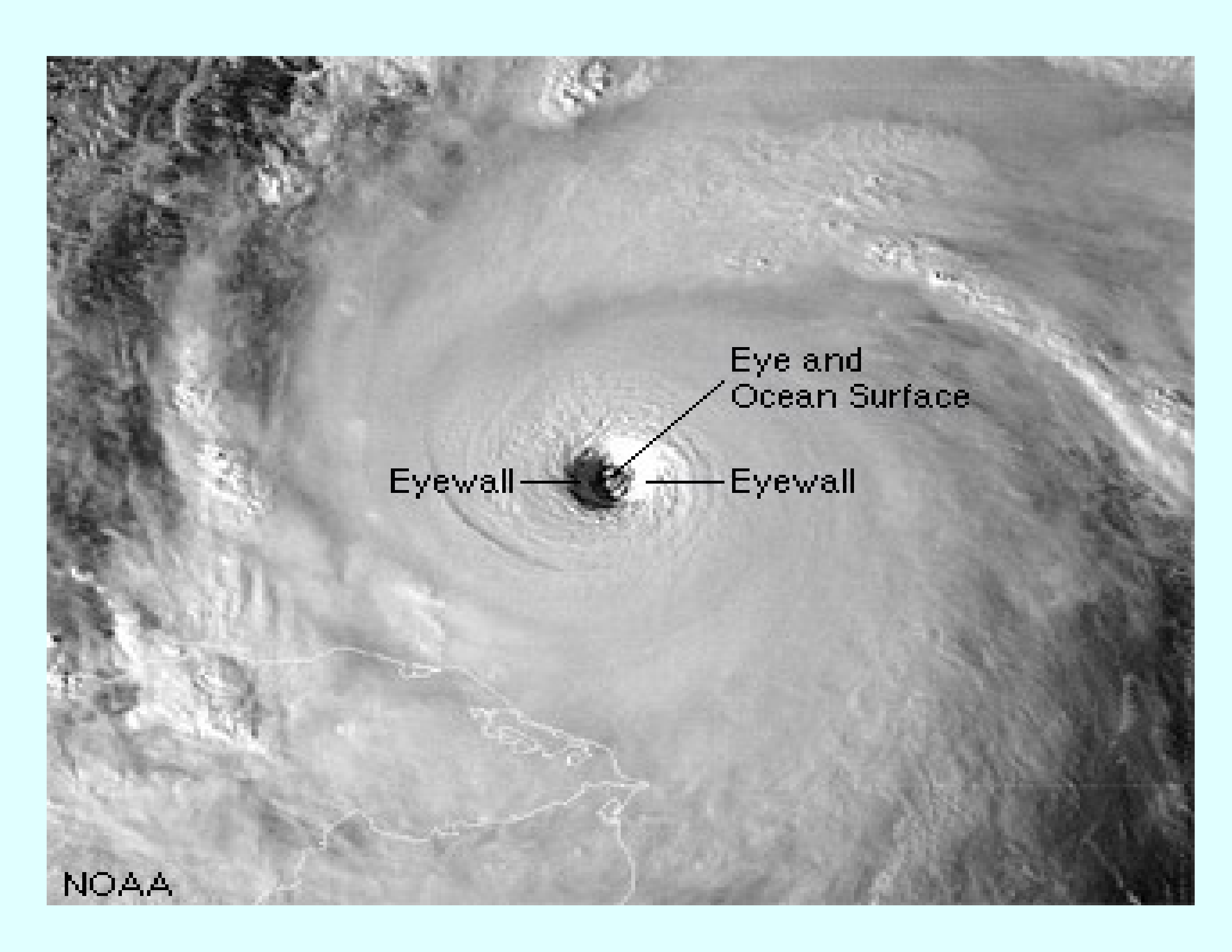
Hurricane ANDREW (16-28 AUG 1992)

AAA—MSI TO VIS

IN REAL TIME

2001Z 25 AUG 1992

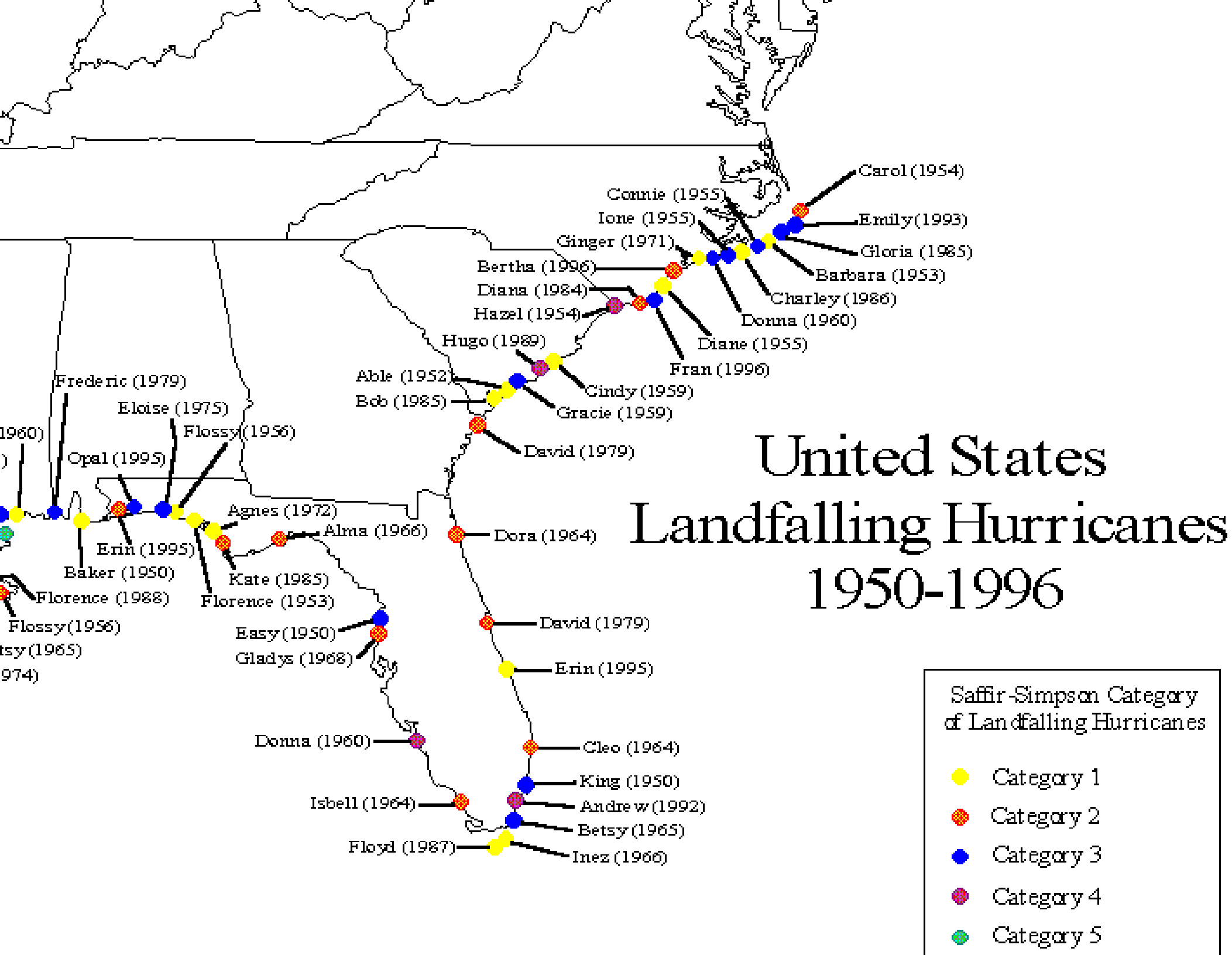


An aerial photograph of a hurricane, showing the central eye and the surrounding eyewall. The eye is a bright, circular area in the center, and the eyewall is a darker, ring-like structure surrounding it. The surrounding clouds are dark and textured. Labels with leader lines point to the eye and the eyewall.

Eye and
Ocean Surface

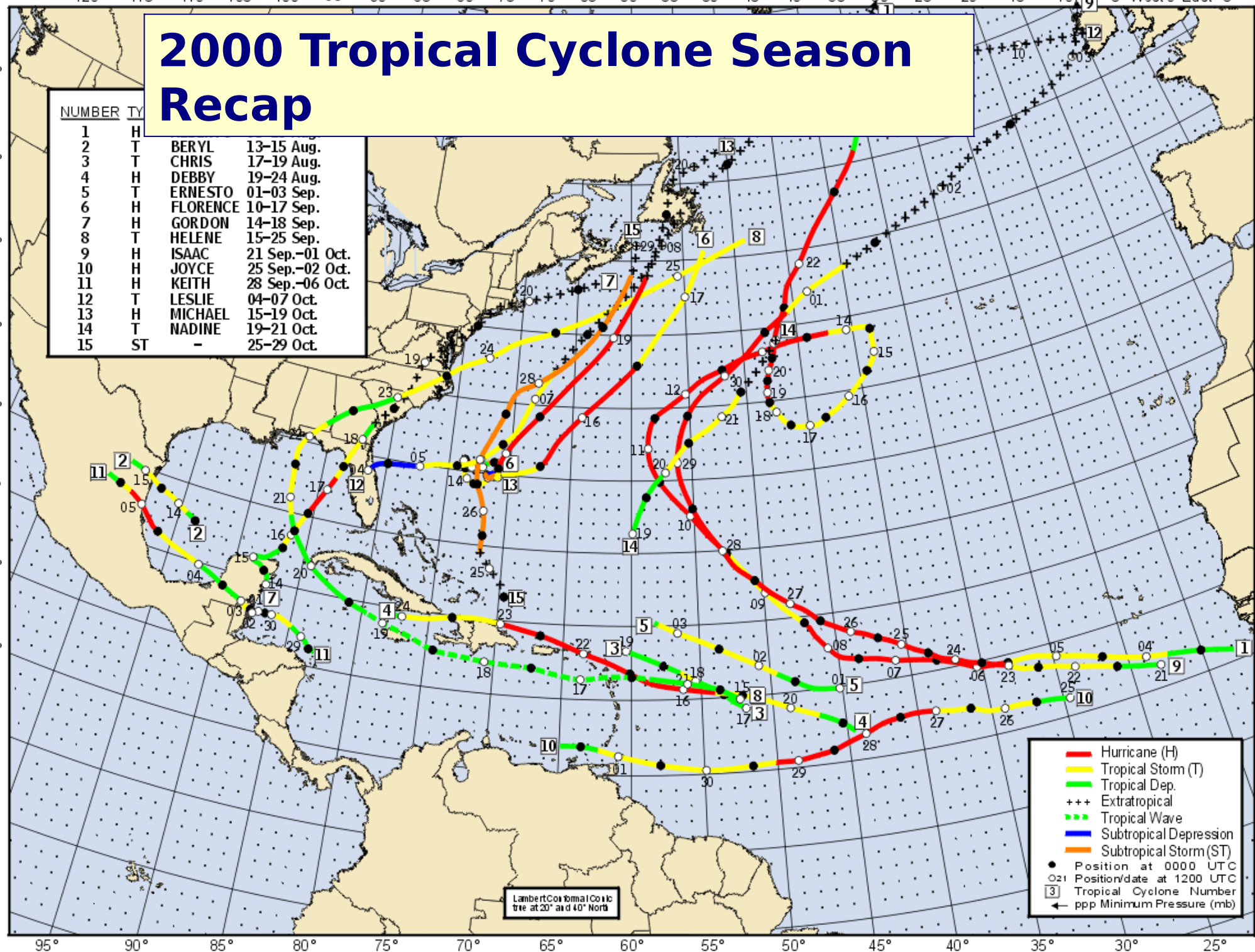
Eyewall

Eyewall



2000 Tropical Cyclone Season Recap

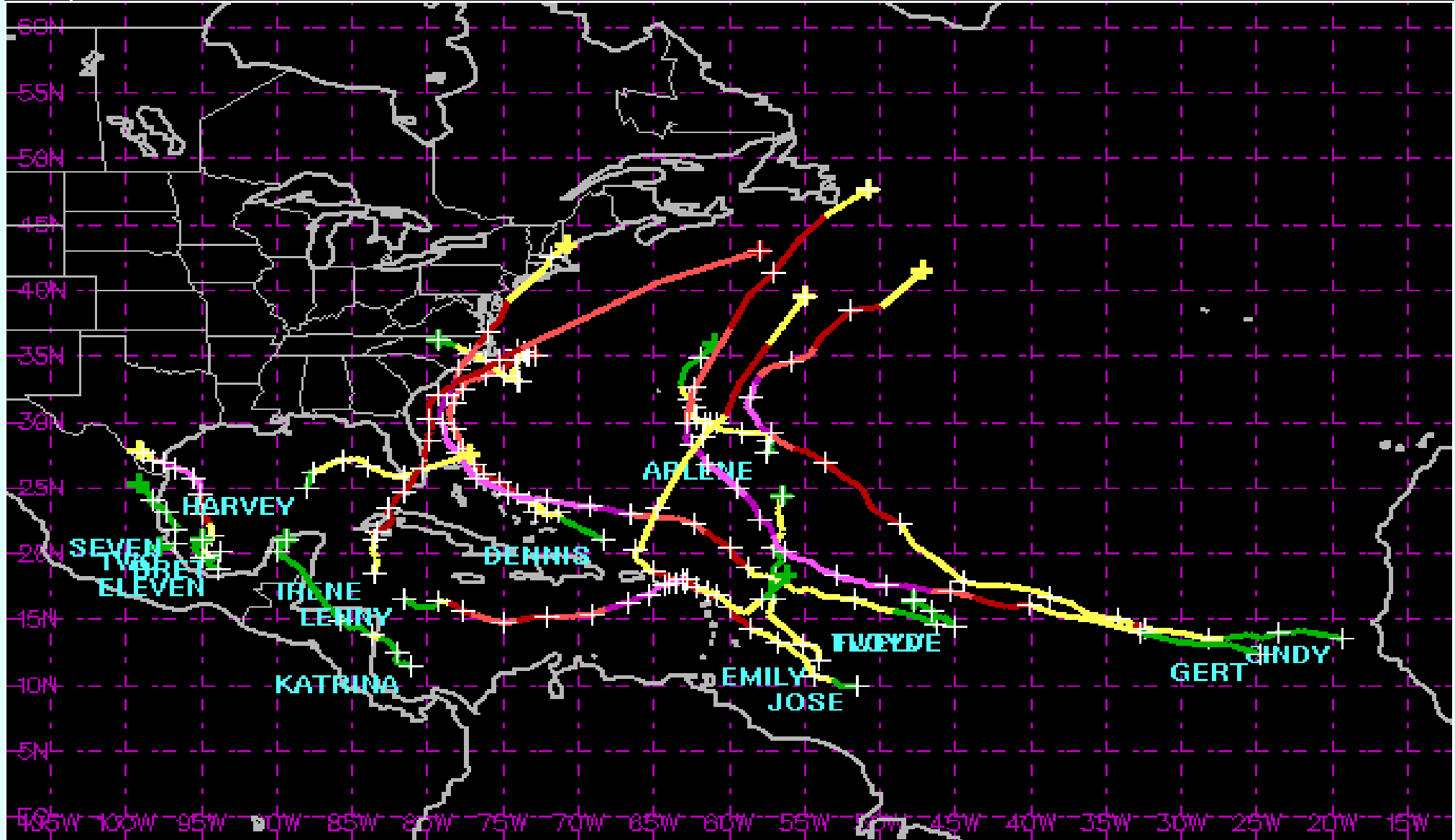
NUMBER	TY	NAME	DATE
1	H	BERYL	13-15 Aug.
2	T	CHRIS	17-19 Aug.
3	T	DEBBY	19-24 Aug.
4	H	ERNESTO	01-03 Sep.
5	H	FLORENCE	10-17 Sep.
6	H	GORDON	14-18 Sep.
7	H	HELENE	15-25 Sep.
8	T	ISAAC	21 Sep.-01 Oct.
9	H	JOYCE	25 Sep.-02 Oct.
10	H	KEITH	28 Sep.-06 Oct.
11	H	LESLIE	04-07 Oct.
12	H	MICHAEL	15-19 Oct.
13	H	NADINE	19-21 Oct.
14	T	-	25-29 Oct.
15	ST	-	-



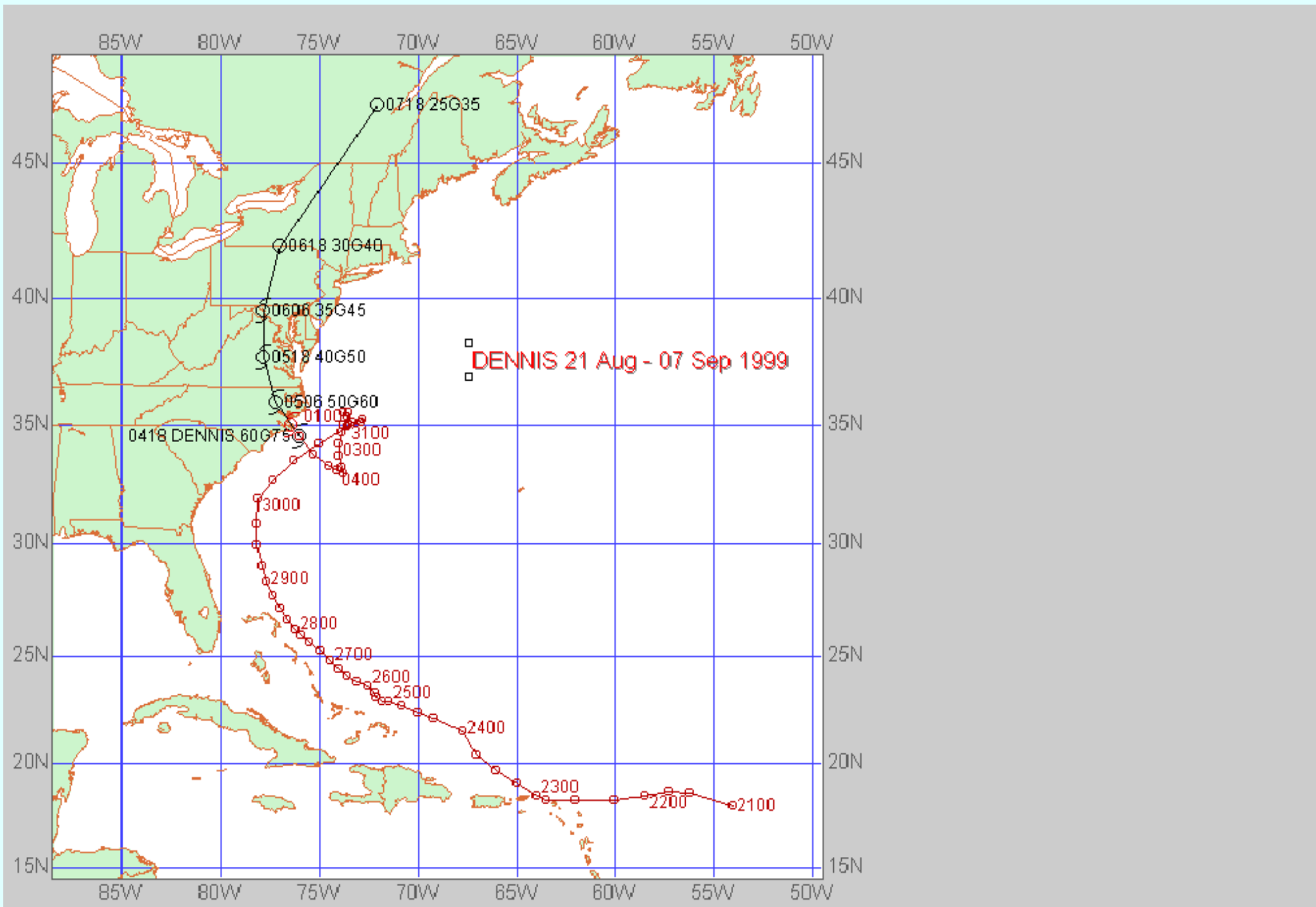
1999

Tropical Storm Tracks

Year 1999



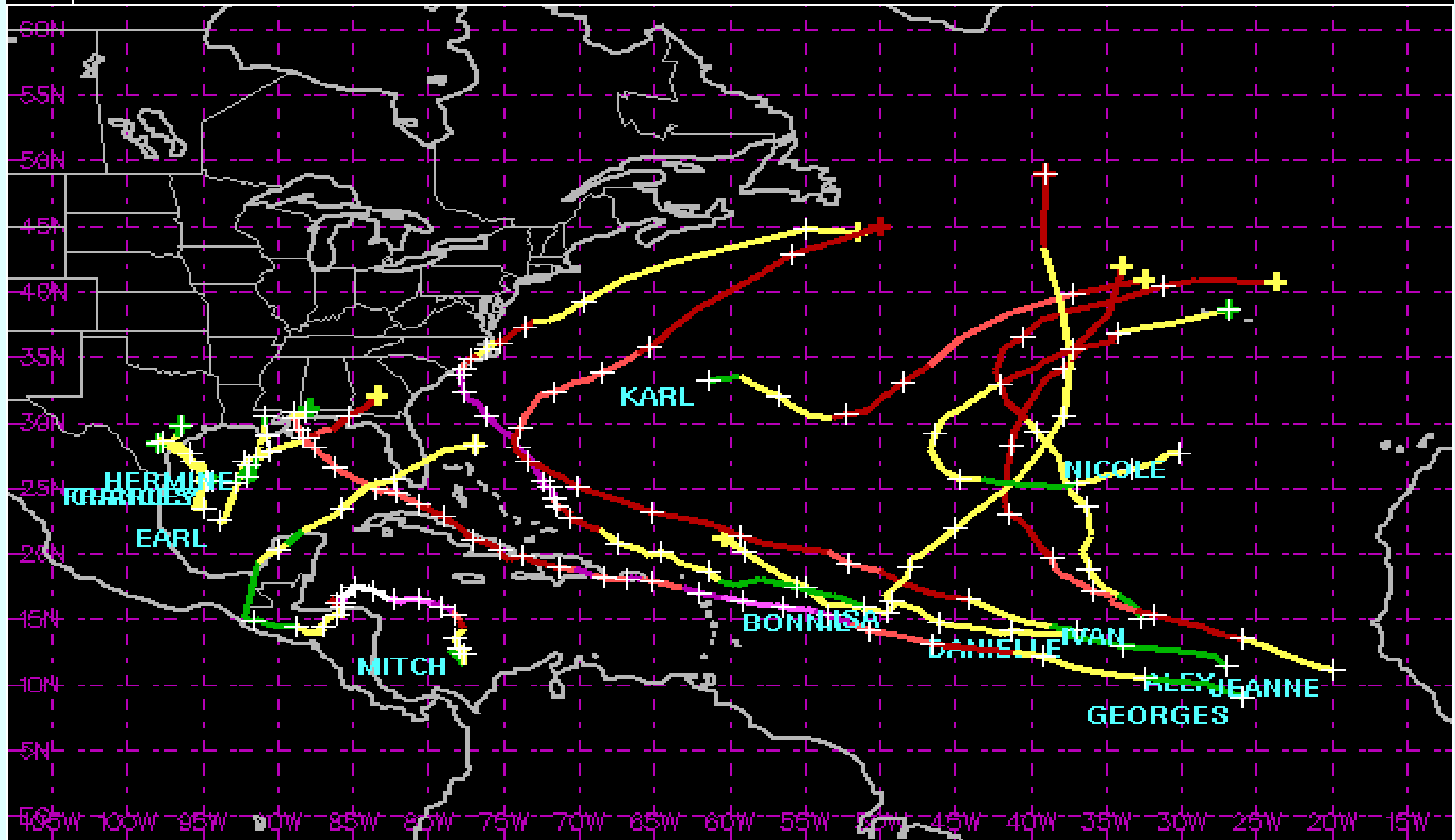
Track of Hurricane Dennis 1999



1998

Tropical Storm Tracks

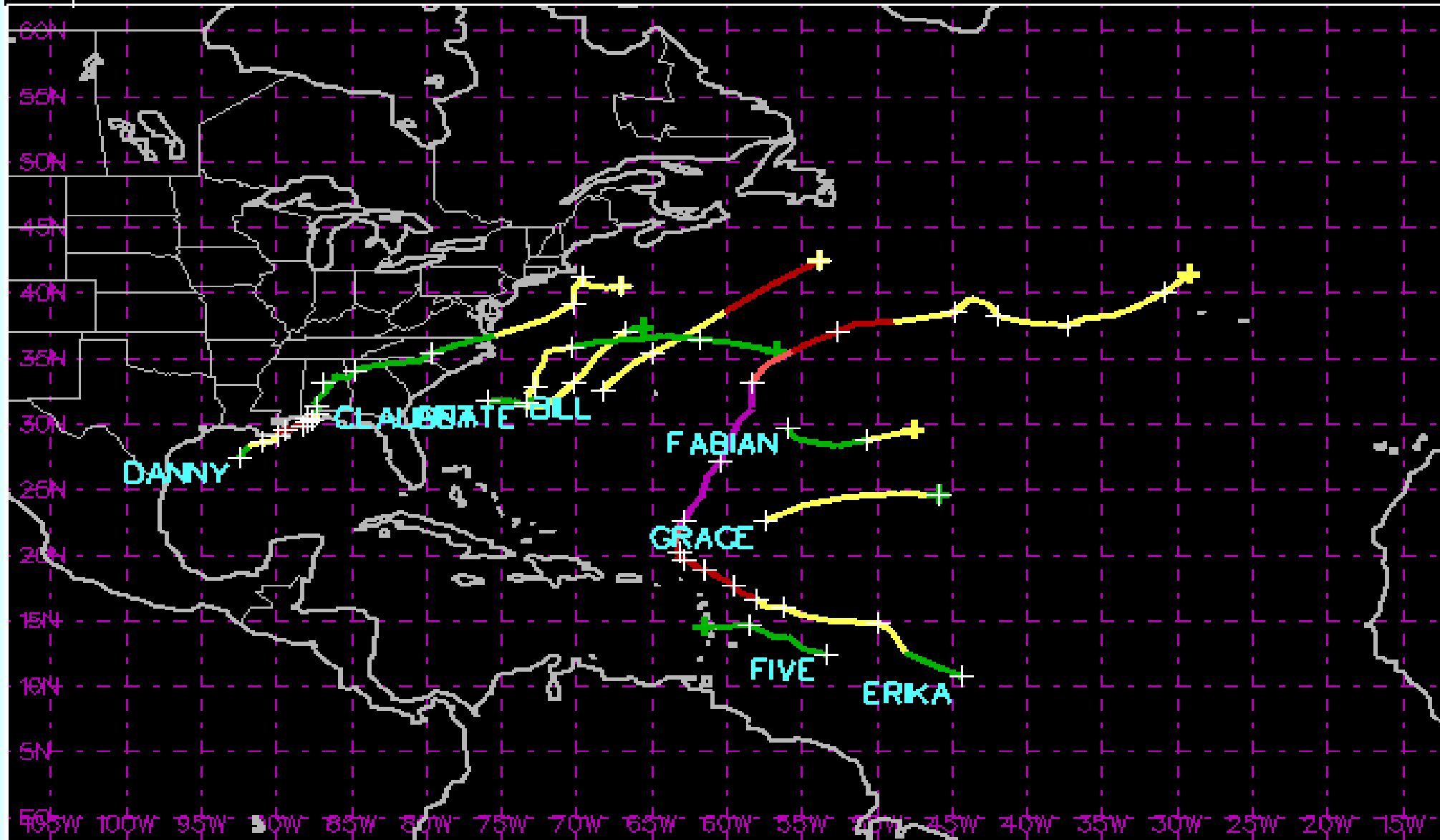
Year 1998



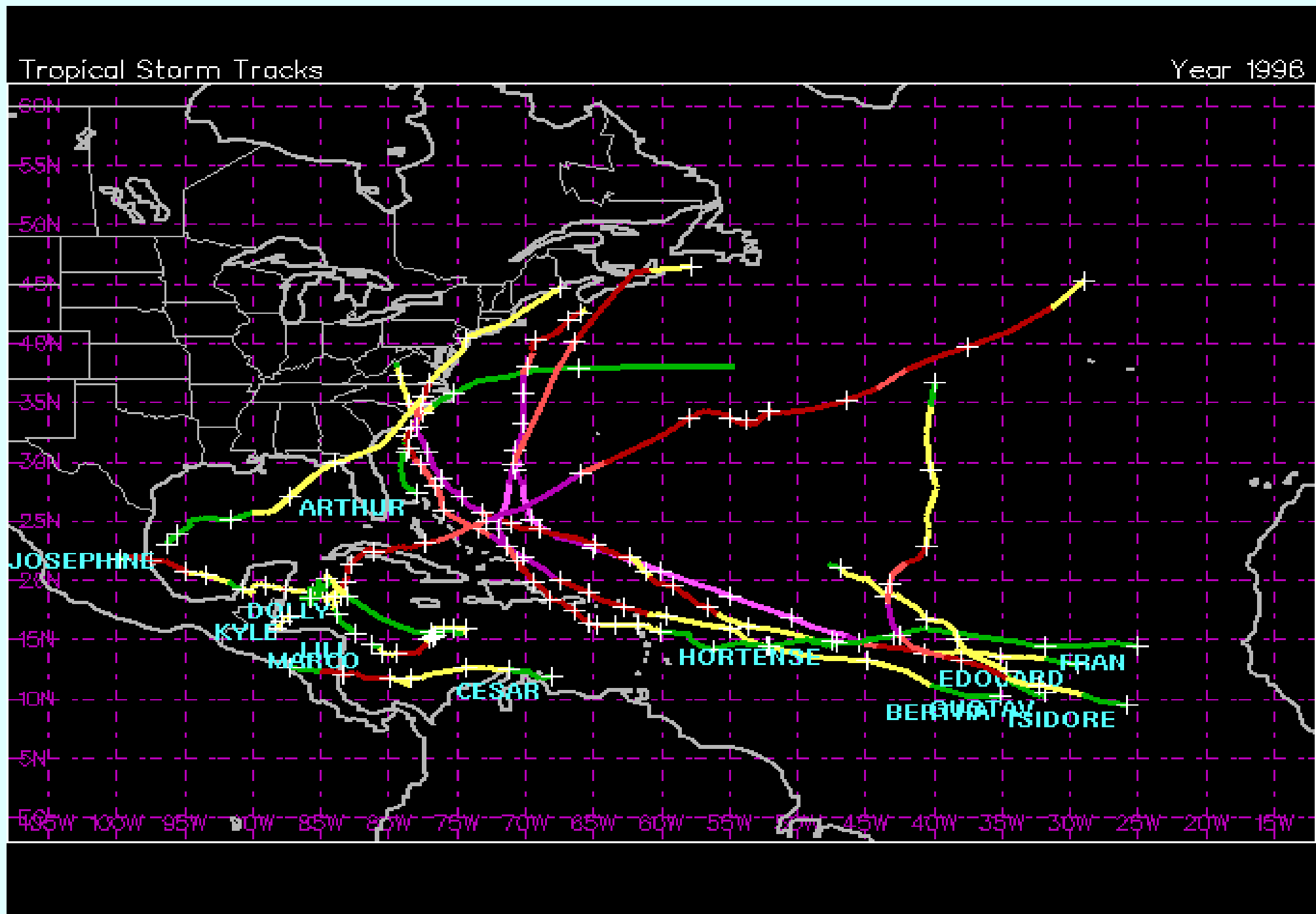
1997

Tropical Storm Tracks

Year 1997



1996



Year 2002 Storm Names



Arthur
Bertha
Cristobal
Dolly
Edouard
Fay
Gustav
Hanna
Isidore
Josephine
Kyle

Lili
Marco
Nana
Omar
Paloma
Rene
Sally
Teddy
Vicky
Wilfred

